ARVIN-EDISON WATER STORAGE DISTRICT

REPORT OF DISTRICT OPERATIONS

May 2021

Receiving Return of Previously Banked Water from Rosedale Rio-Bravo (Exchange with Kern Delta)

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WATER SUPPLY

Friant Division Central Valley Project (CVP)

- The 2021 Water Year allocation is as follows:
  - 20% Class 1 (8,000 AF)
  - 0% Class 2
- Exhibit "A" provides additional supply information for 2021 Water Year supplies

San Joaquin River Restoration Program (SJRRP)

- The 2021 Runoff Year is estimated at 524,000 AF of natural river runoff in the SJR watershed, which is a "Critical-High" year type pursuant to SJR settlement and accordingly, the SJRRP would receive 70,919 AF of water supply.
- Given a "Critical-High" year there is likely no Unreleased Restoration Flows and very little Recapture/Recirculation opportunity (little to no additional supplies to Contractors).
- Provided continued dry conditions, the SJRRP has called on AEWSD's 2016 exchange agreement for 7,000 AF in 2021 and consequently the SJRRP would provide 21,000 AF in return for such exchange.
- District's RWA credit beginning balance is approximately 90,630 AF (subject to reconciliation and staff review). RWA credits allow the District to purchase water for $10/AF during wet periods when RWA water is declared (no opportunity in 2021).

Shasta System CVP

- The 2021 allocation for south of Delta Ag was reduced from 5% down to 0% on the 26th

State Water Project (SWP)

- The 2021 Table A allocation remains 5%

Kern River

- 2021 supplies are currently estimated at 20% of average

Water Bank Facilities

- Given limited initial surface supply allocations, heavy reliance on wellfields and previously banked water is expected for the 2021 Water Year (111,600 AF)

Metropolitan Water District (MWD) Water Management Program

- MWD beginning balance is 142,257 AF in water bank reserves
- The District obtained its eleventh consecutive year approval from the State Water Resources Control Board regarding a Petition for a Consolidated Place-of-Use (CPOU), which now expires on July 15, 2021 and a subsequent CPOU has been initiated for the next 12-months after July 15
- The CPOU petition includes the ability to exchange all types of Arvin-Edison supplies with MWD including unbalanced exchanges
- The District's 10-year NEPA documentation is complete and approved until March 21, 2024. Staff, along with MWD, DWR, and Reclamation continue pursuit of a long-term CPOU approval through November 2035
- District has begun communicating with MWD staff regarding 2021 program activity involving surface water supplies and/or groundwater supplies that meet California Aqueduct requirements

Rosedale-Rio Bravo Water Management Program

- The District's 2021 beginning account balance for water held in RRBWSD is at 64,462 AF.
- District anticipates receiving 10,000 AF from the program, by exchange with Kern Delta, to supplement other surface water supplies, which would reduce the account to 54,462 AF.
- Districts executed a "2021 Use of CVC/FKC Intertie Agreement" for the RRBWSD-Delano Earlimart banking program.

Kern Delta Water District

- Staff continues meeting with KDWD staff to advance water management opportunities including joint partnership in groundwater recharge facilities and interconnection facilities between Forrest Frick Pumping Plant Discharge Pipeline and the Eastside Canal
- AEWSD-KDWD-RRBWSD have executed an operational exchange in which AEWSD's 10,000 acre-feet from RRBWSD would be delivered via KDWD from April through September and RRBWSD would deliver 10,000 acre-feet to KDWD (for MWD) from March through December.

District Partnerships

- The District has participated in water management programs with the following districts/agencies in Water Year 2021:

Chowchilla Water District
Fresno County
Garfield Water District
Hills Valley Irrigation District
Kern Delta Water District
Lewis Creek Water District
Pixley Irrigation District
Rosedale-Rio Bravo Water Storage District
San Joaquin River Restoration Program
Saucelito Irrigation District
Shafter-Wasco Irrigation District
Tri-Valley Water District

WATER DEMAND

- Staff began implementing the Prorate Program of 1.6 AF/AC (May through September period)
- District surface water deliveries for the month were 16,069 AF (4% below average)
- The following is a summary of surface water deliveries for May 2021:

	May 2021		Year to Date	
	Historical	2021 WY	Historical	2021 WY
Turnout Deliveries	16,720	16,069	36,054	37,241
In-Lieu Deliveries	-	-	-	-
Temporary Water	-	-		
Spreading	-	239	-	486
Total	16,720	16,308	36,054	37,727

- Exhibit "B" illustrates the delivery data
- The month's peak daily in-District demand was 394 cfs, which occurred on the 14th
- Exhibit "C-1" details Canal Water Quality information

- Exhibit “C-2” presents the Aquatic Pest Control Treatments ($215,000) for Calendar Year 2021

GENERAL

- Staff continued to coordinate with Landowners in regards to Prorate Program (irrigation schedules, re-allocation pools, and pump-in request)
- Staff sent out ballots for the Proposition 218 election, which are due by July 13
- Staff continues to practice several safety measures in response to COVID-19
- Staff continues transition efforts with the new Bakersfield office (4700 Stockdale Avenue, Suite 115)
- District vehicles consumed an estimated 4,700 gallons of fuel during the month (average fuel efficiency of 10.9 mpg)
- There were 262 hours lost due to illness (including COVID hours) and zero (0) hours lost due to on-the-job injuries with no employees out on Workers’ Compensation Claim
- Exhibit "D” highlights precipitation, temperature, and wind speed
- Exhibit "E" summarizes energy consumption and power demand for Water Year 2021 is expected to generate an electrical demand of approximately 142 million kilowatt hours
- Exhibit “I” list various meetings for management and engineering staff

ENGINEERING DEPARTMENT ACTIVITIES

Troubleshooting Well N18 for Startup (North Canal Balancing Reservoir)

Recloser troubleshooting for Max Well Operation (North Canal Spreading Works)

Routine Activities

- Review and accounting of District’s water supply and related contracts
- Administration or proposals of water management and wheeling agreements
- Groundwater level surveys and associated exhibits
- Water quality testing
- ArcGIS database updates and maintenance
- Inspection/evaluation and/or repair of cathodic protection rectifiers and test stations

- CIMIS station management (https://cimis.water.ca.gov/Stations.aspx)
- Land use/crop surveys with data entry
- Monthly/annual reports regarding water deliveries, water use, and energy use

Grants & Funding Opportunity Updates

- 2015 USBR Water Conservation Grant administration (Groundwater Metering Project)
    - Work continues with a final performance and validation report
- District **was awarded** 2020 USBR WaterSMART grant application for the Forrest Frick Pipeline/ Eastside Canal Intertie at $500,000 (with a $500,000 local cost share) and a grant contract is anticipated in July
- Regional Conservation Partnership Program (NRCS) funding for expansion of Tejon Unit gravity pipelines service area **was not awarded** and staff met with NRCS staff to discuss project scoring
- NRCS landowner incentive programs assist with implementing various conservation activities, including but not limited to, irrigation system improvements, filtration needs, water/nutrient/pest management, and engine replacement:
    - Phone (661) 336-0967
    - Website (www.ca.nrcs.usda.gov)

Other Activities

- Administration and accounting of on-going water management programs
- Technical support and review of ongoing projects/studies such as:
    - Sunset Spreading Works (w/Kern Delta WD)
        - Basin, pump station and pipeline design reviews
        - Power options (PG&E vs. PWRPA)
    - Potential Interconnections (w/ Wheeler Ridge-Maricopa WSD)
        - Easement review
        - Pipeline extension and outlet design (S73-P4 to 850 Canal)
    - Groundwater Service Area System Expansion CEQA Planning
        - Comment letter was received and staff and consultants are drafting a response
        - Board to consider the proposed Mitigated Negative Declaration at the June meeting
    - Pump Replacement Program
        - Received delivery of 5 (4 of 4), 10 (2 of 4) CFS pumps, and 20 (2/7) CFS pumps (pending installation) and the remaining pumps are expected in July
    - Turnout modification requests
        - Canopy Ag (E-29) upsize completed, reconciliation is ongoing
    - Temporary and/or In-Lieu Water Service Contract Requests
        - Sunview
        - TechAg
        - Bolthouse
    - Landowner pipeline replacement (adjacent to and within Sycamore Spreading)
    - Cathodic protection system upgrades
        - FFPP discharge pipeline
    - Pump Efficiency Testing
        - As needed for replaced pumps

- Real Time Water Quality Monitoring
  - Calibration and software setup are complete
  - Remote connection for data access and website display are in progress
- CIMIS Station
  - Coordinated landline to cellular conversion with Department of Water Resources (installation pending)
- Intertie Pipeline Inspection
  - Reviewing alternate inspection methods that do not require a drained pipeline
- Standtank Painting
  - Coordinate inspection and labor compliance services
  - Painting to begin in June
- Assessment of Reasonable Water Requirement report
  - QA/QC data and sent to JM Lord

SGMA Activities

- Continued coordination meetings and outreach activities
- Attended various GSA meetings
- Coordinated GSA boundary revisions with neighboring agencies
  - Pending Kern River GSA and Kern Groundwater Authority review
- Prioritization criteria for Projects and Management Actions
- Development of a potential Well Mitigation Policy
- Evaluate various Water Budget methodologies
- Completed Projects and Management Actions forms for White Wolf Basin

Requests for Information/Easements/Planning Notices

- Water supply
- Water costs
- Historical groundwater levels
- Monitoring well conversions
- Water quality
- Land use data
- Easements and/or right-of-way encroachments
  - Shell Oil (Intake Canal)
  - Quad Knopf development (Intake Canal)
- Reviewing/responding to multiple planning notices
  - Kern County (various developments/potential facility conflicts)
- Reviewed/responded to environmental documents, as necessary
  - CVC EIR

Power Related Activities

- Assisted PWRPA consultants with
  - Power coordination and monitoring
  - PWRPA invoice and demand data changes
  - Monthly billing anomalies/meter reconciliations
  - Load forecast updates and rate analysis
  - SAMBA load scheduling replacement review
  - Contract demand analysis
- PG&E Power Safety Public Shutoff coordination
- Coordinated meter database changes with PG&E

- Reviewed long-term power management activities
    - Continued investigation of low head hydro potential (Intake Canal)
    - District Headquarters Solar proposal interconnection agreement
    - Reviewed available local solar renewable energy certificates to Western Renewable Energy Generation Information System (credits to be used by District/PWRPA)
    - Sunset Spreading power report and analysis
- Calendar Year and Water Year power reconciliations and summaries
- Groundwater Service Program
    - Monthly invoicing and program coordination

SPREADING WORKS OPERATIONS (WELLFIELDS AND BASINS)

- Exhibit “F” summarizes wellfield production, which totaled 14,250 AF for the month (94% of historical maximum in May)
- Exhibit “G” summarizes gross direct spreading of 239 AF for the month due to wellfield regulation
- Exhibits “H-1” and “H-2” summarize current static and/or pumping water in table and graphic forms
- Following is a summary of repairs associated with “active” District wells:

Field	Well #	Year	HP	Reason	Work
Balancing Reservoir	16	2006	300	Low Production and Shaft Seized	Pulled equipment, video, replacement pump ordered
Sycamore	32	1970	300	Excess Vibrations	Pulled equipment, video, replacement pump ordered
Sycamore	28	1970	300	Excess Vibrations	Pulled equipment, video, replacement pump ordered
Sycamore	17	1967	300	Excess Vibrations	Pulled and inspected equipment, replacement pump ordered
Tejon	90	1970	300	Excess Vibrations	Pulled and inspected equipment, replacement pump ordered

***Back in Service**

- Seven (7) out of 86, or 8%, of District wells are currently out of service and consultants are reviewing repair options
    - Two (2) long-term failures in Sycamore 34 and Tejon 91
    - Five (5) see above table
- Well Replacement Program
    - North Canal Spreading Works power issues to operate maximum wells have been resolved and PG&E coordination continues
    - Tejon Spreading Works coordination with PG&E to troubleshoot power issues continues

OPERATIONS DEPARTMENT ACTIVITES

Routine Activities

- Operate and monitor the District's water distribution and delivery systems including canals, ponds and reservoirs
- Conducted monthly safety meetings
- Inspected control systems at pumping plants (transducers, Cla-valves, battery back-ups, etc.)
- Assisted personnel in the repair, replacement, and/or maintenance of facilities on an as-needed basis for the following items:
  - Replaced flowmeter batteries (turnouts and wells)
  - Flushed and cleaned various turnouts and appurtenances
  - Greased turnout valve operators
  - Maintained weed control (pumping plants, turnouts, air vents, and isolation valves)
  - Changed lights and panel bulbs (as needed)
  - Inspected/replaced water quality warning labels at turnouts
  - Cleaned and/or replaced air-chamber sight glasses
  - Replaced missing locks and chains (canal gates and turnouts)
- Staff performed end-of-month meter readings at Interties, Wells, Turnouts, and Pumping Plants (power)

Monitoring Intake Canal Pump-Ins (KD-AE2 into Intake Canal)

Maximum Wellfield Operations Continue

Additional Activities

- Continued maximum wellfield operations
  - Maximized production by fully utilizing all available storage
- Cleaned forebays due to heavy tumbleweed accumulation (North & South side)
- Cleaned and inspected ball valves, risers, and bushings (North & South Pump Plants)
- Assisted consultants with wellfield operational scenarios for recloser testing (North Canal and Tejon Spreading Works)
- Replaced well meters (Sycamore 23, 25, and 31)
- Replaced turnout meters (C-09, W-60, W-85, W-09, and M-56)
- Responded to various Pumping Plant alarms (reset and primed laterals)
- Stenciled turnouts and well discharge pipes with labels (as needed)

Underground Service Alert (USA) Report

- District initiated 0
- Responded to 329 USA notices to locate District underground facilities
  - 11 required markings of District facilities
  - 276 were renewals
  - 42 with no conflicts

Power Outages and/or Interruptions Involving the Following Systems

- Laterals N1, N8, N55, S38, S93, and Tejon Spreading Works

Laterals Prorates (number of days)

- Laterals S38 (1), S64 (2), and S93 (2)

MAINTENANCE DEPARTMENT ACTIVITIES

Clearing Out Sycamore Channel Adjacent to South Canal

Clearing Tumbleweeds from Forebays (N8-P1)

Routine Activities

- Aquatic and terrestrial weed control (Intake and South Canal)
- Routine gardening and maintenance at Headquarters and CIMIS station
- Fence repair (Intake Canal)
- Grading
- Discing
- Mowing (Sycamore Spreading Works)
- Cleared out forebays (North and South Canal)
- Assisted other Departments as needed (Operations)
- Conducted monthly safety meeting including COVID procedures

Additional Activities

- Removed excessive tumbleweeds, debris and sediment (N8-P1 and Sycamore Channel)
- Concrete work for 24” Interbasin Structure inlet cutoff wall and concrete pad to increase gravity pond fill rates (North Canal Spreading Works)
- Remove and haul off existing irrigation pipe (Sunset Groundwater Recharge Facility)
- Remove old pipeline left from winter maintenance repairs (turnout E-01)

- Assist office staff with moving furniture to the new Bakersfield office
- Cut and haul off scrap pipe (equipment yard)
- Repair pipeline leak (N1-P8 discharge manifold)
- Transport storage boxes from sea trains to offsite storage
- Replaced Maintenance shop window
- Filled in various washouts (Forrest Frick Pumping Plant)
- Prepped and painted various facilities and equipment
    - Pumping Plants N1-P3 and N8-P4
    - Turnouts A-45 and A-48
    - District barbecue grill

Mechanic's Shop Repair Activities

- Routine weekly inspection on the fuel tank, gas pumps, and generator
- Fleet repairs/replacement parts

Part	Repair/Replaced	Part	Repair/Replaced
Starter	1	Tail Lights	2
Brakes	6	Wiper blades	6
Tires	10	Cabin Filter	4
Tire Repairs	4	Catalytic Converter	1
Rotors/Drums	3	Trailer Lights	3
Batteries	1	Coolant Cap	1
Fuel Filters	5		

- Heavy Equipment Repairs
    - Repair tire (Rotary cutter and backhoe)
    - Clutch adjustment (Water truck)
    - Repair driveline (Rotary cutter)

PUMP DEPARTMENT ACTIVITIES

Routine Pump Maintenance Activities

- Replacing pump packing
- Pump bearing lubrication at various pumping plants
- Maintain drip oil on District Wells
- Inspection and maintenance of air compressors
- Inspection and/or adjustment of travelling water screens/moss screens.

Additional Activities

- Continued working with Engineering Department on Pump Replacement Program
    - Initiated Phase 2 (horizontal pumps)
    - Received initial shipment of vertical (canal-side) pumps (Phase 1)
        - Began preparing new pumps for installation
- Replaced check valves (pumping plants N55-P1 and N55-P12)
- Installed new check valve arms and springs (District wide)

PUMP & MOTOR REPAIR SUMMARY

	Pumping Plant/Wells	Unit	Size	Time/Hours	Reason
Vertical Pumps	None to Report				
Vertical Motors	S38-P1	1	200 HP	93,199	Burnt motor leads
Horizontal Pumps	N55-P2	2	10 CFS	7,345	Worn sleeves
Horizontal Motors	S38-P2	2	50 HP	4,321	Worn bearings

Received and Inspected Vertical Turbine Pumps (Pump Replacement Project Phase 1)

CONTROLS DEPARTMENT ACTIVITIES

Routine Activities

- SCADA/radio maintenance or troubleshooting
- Monthly and annual inventory
- Testing and repair/replacement of distribution system and well facility electrical components as needed

Component	Replaced/Repaired	Component	Replaced/Repaired
Contact Block	4	Control fuses	1
Wiring	3	12 kV transformer	1
Relays	7	Softstarters	2
Transducers	1		

Additional Activities

- Programming for SCADA system updates and monitored performance
- Replaced standby and pilot lights (Pumping Plant N1-P1)
- Supervised and assisted with recloser troubleshooting and testing (North Canal Spreading Works)

FORREST FRICK PUMPING PLANT

- 2,024 AF of water was pumped during the month
- Unit #3 motor and pump repairs are progressing and expect delivery in July

INTERTIE PUMPING PLANT

- There was no import (gravity delivery) or export (pumped delivery) of water (0 AF) through the Intertie Pipeline Pumping Plant

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EXHIBIT "A-1"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER SUPPLY AND DEMAND

SUPPLY		***AF***	***%***
FRIANT-KERN (F-K)			
20% OF 40,000 AF CLASS 1		8,000	
0% OF 311,675 AF CLASS 2 (Uncontrolled Season)/RWA		0	
0% OF 311,675 AF CLASS 2		0	
CARRYOVER OF 2020 WATER		7,611	
SHAFTER-WASCO ID		174	
WESTSIDE MUTUTAL		0	
TULARE ID		0	
MADERA ID		0	
	SUBTOTAL	15,785	
FRESNO COUNTY		-600	
GARFIELD WD		-61	
HILLS VALLEY ID		-22	
TRI VALLEY WD		-7	
LEWIS CREEK WD		-21	
SAUCELITO ID		-346	
SJRRP RETURN		-7,000	
	TOTAL F-K	7,728	5.9%
CROSS VALLEY CANAL (CVC)			
RECIRCULATION		0	
FRESNO COUNTY		0	
PIXLEY ID		12	
SLR 2020 CARRYOVER		2,696	
	TOTAL CVC	2,708	2.1%
STATE WATER PROJECT (AQUEDUCT)			
KT EXCHANGE		0	
	TOTAL AQUEDUCT	0	0.0%
INTERTIE PIPELINE (IPL)			
FLOOD EMERGENCY RETURN		0	
	TOTAL IPL	0	0.0%
KERN RIVER			
FRESNO COUNTY		0	
MWD BANKING		0	
KERN DELTA H ST (RRBWSD EXCHANGE)		10,000	
	TOTAL IPL	10,000	7.6%
INTAKE CANAL PUMP-IN (IC)			
KERN DELTA WELLS		0	
KERN DELTA H STREET		0	
	TOTAL KR	0	0.0%
TOTAL IMPORT		**20,436**	**15.5%**
GROUNDWATER PUMPING			
IRRIGATION DEMAND		111,614	
FARM PUMP IN		0	
RETURN TO MWD		0	
	TOTAL PUMPING	111,614	84.5%
TOTAL WATER SUPPLY		132,050	100.0%

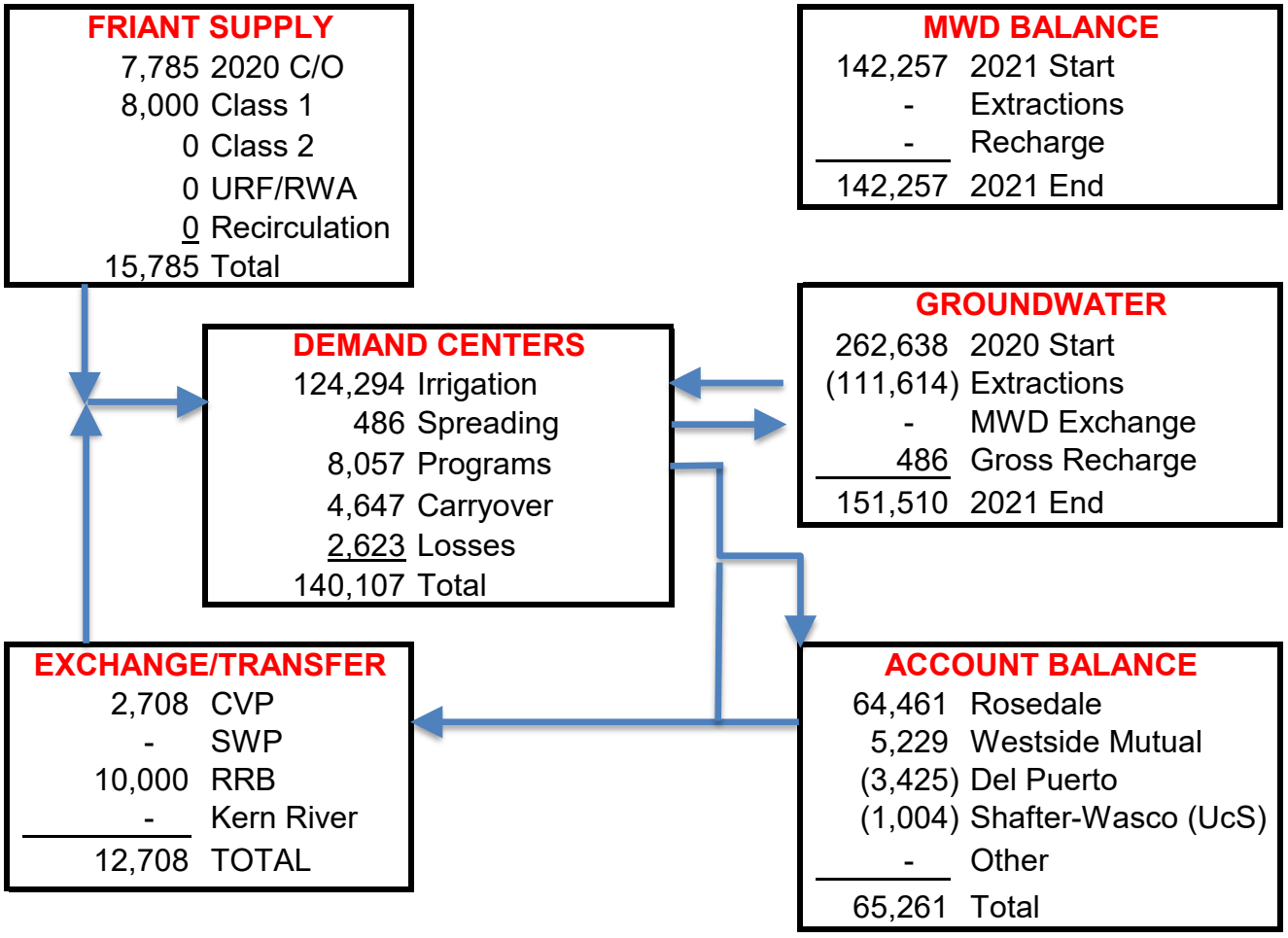
DEMAND		
IRRIGATION DEMAND (MARCH-MAY)	37,241	28.2%
IRRIGATION DEMAND (JUNE-FEBRUARY)	87,053	65.9%
SPREADING (MARCH-MAY)	486	0.4%
SPREADING (JUNE-FEBRUARY)	0	0.0%
RETURN TO MWD	0	0.0%
WHEELING	0	0.0%
CARRYOVER TO 2022	4,647	3.5%
LOSSES/METERING INACCURACIES	2,623	2.0%
TOTAL DEMAND	132,050	100.0%

6/3/2021

Exhibit "A-2"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER MANAGEMENT



Surface Water	13,166	**11%**
Groundwater (69% of Max)	111,614	**89%**
Projected Irrigation Demand	124,780	**100%**

EXHIBIT "B"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR DELIVERIES

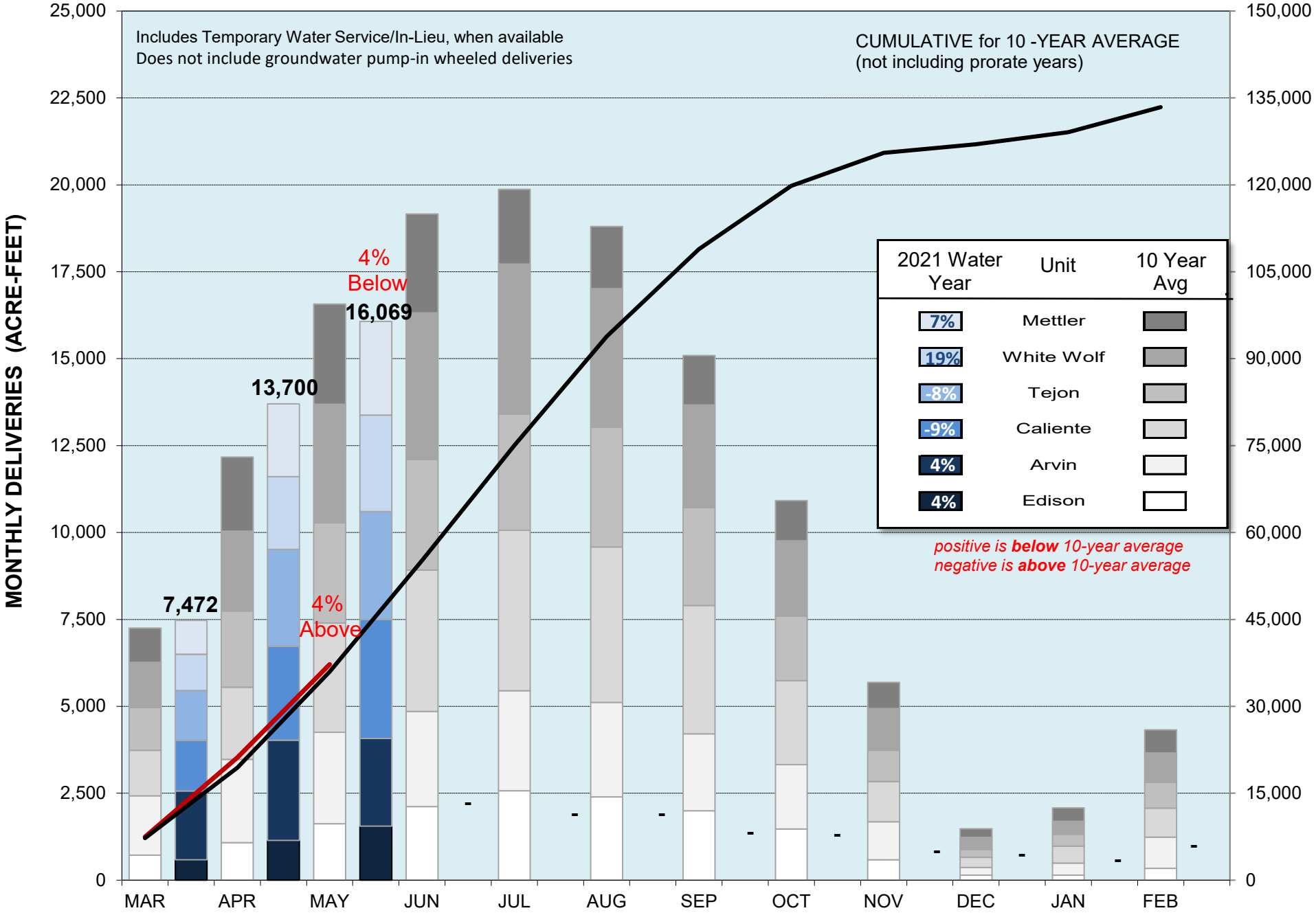


EXHIBIT "C1"

ARVIN-EDISON WATER STORAGE DISTRICT

WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow	Import	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
		cfs	Source	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l		umhos/cm	mg/l		lbs/AF	mg/l	NTU
Intake Canal	05/07/21	35	KD WELLS & KD MAIN(100%)	27.0	1.35	4.2	0.34	25.0	1.08	96	1.57	12.0	0.34	3.80	0.06	150	8.7	274	84	1.2	0.42	0.15	4.0
	04/07/21	27	KD WELLS & KD MAIN(100%)	24.0	1.20	3.3	0.27	24.0	1.03	91	1.49	12.0	0.34	2.20	0.04	130	8.6	243	73	1.2	0.76	0.18	5.0
	03/12/21	0	RESIDUAL CVC(100%)	22.0	1.10	1.5	0.12	32.0	1.38	78	1.28	21.0	0.59	0.99	0.02	140	8.7	263	62	1.8	1.10	0.17	9.4
	02/11/21	22	CVC(100%)	24.0	1.20	1.3	0.11	9.1	0.39	74	1.21	4.7	0.13	2.10	0.03	87	8.6	162	64	0.5	0.33	0.04	16.8
	01/11/21	0	RESIDUAL FKC(100%)	13.0	0.65	0.7	0.06	5.6	0.24	52	0.85	3.3	0.09	0.46	0.01	52	8.3	101	36	0.4	0.53	0.02	9.2
	12/10/20	0	RESIDUAL FKC(100%)	10.0	0.50	0.6	0.05	4.1	0.18	37	0.61	2.8	0.08	0.94	0.02	40	7.5	85	28	0.3	0.21	0.02	4.5
	11/05/20	15	RESIDUAL CVC(100%)	27.0	1.35	1.7	0.14	29.0	1.25	89	1.46	21.0	0.59	1.80	0.03	150	8.7	258	75	1.5	0.63	0.12	2.4
	10/09/20	50	CVC(100%)	23.0	1.15	1.2	0.10	31.0	1.34	81	1.33	26.0	0.73	4.80	0.08	150	8.4	286	63	1.7	0.79	0.12	1.5
	09/10/20	200	FKC(100%)	6.1	0.31	0.7	0.05	6.9	0.30	30	0.49	3.2	0.09	1.40	0.02	38	7.2	64	18	0.7	0.55	0.02	3.0
	08/11/20	230	FKC(74%)/CVC(9%)/Kern River(17%)	19.0	0.95	2.2	0.18	19.0	0.82	68	1.11	9.1	0.26	2.30	0.04	98	7.7	176	55	1.1	0.02	0.05	2.9
	07/09/20	200	FKC(100%)	12.0	0.60	1.2	0.10	12.0	0.52	42	0.69	8.6	0.24	3.00	0.05	67	7.4	130	36	0.9	ND	0.04	1.9
	06/05/20	120	FKC(71%)/CVC(29%)	21.0	1.05	1.9	0.16	17.0	0.73	66	1.08	14.0	0.39	5.90	0.10	110	7.8	206	59	1.0	ND	0.02	3.9
	05/08/20	108	FKC(93%)/KD WELLS(7%)	25.0	1.25	2.1	0.17	29.0	1.25	83	1.36	23.0	0.65	8.00	0.13	160	8.0	295	71	1.5	ND	0.04	8.9
	04/13/20	0	RESIDUAL FKC(100%)	18.0	0.90	1.9	0.16	23.0	0.99	76	1.25	19.0	0.53	0.55	0.01	120	7.9	227	53	1.4	0.81	0.10	6.8
	Average			**19.4**	**1.0**	**1.8**	**0.1**	**19.1**	**0.8**	**68.8**	**1.1**	**12.8**	**0.4**	**2.7**	**0.0**	**106.6**	**8.1**	**197.9**	**55.5**	**1.1**	**0.6**	**0.1**	**5.7**
North Canal	05/07/21	58	KD WELLS & KD MAIN(18%)/WELLS(82%)	22.0	1.10	4.5	0.37	35.0	1.51	120	1.97	16.0	0.45	7.60	0.12	160	8.2	297	73	1.8	2.00	0.14	1.2
	04/07/21	80	KD WELLS & KD MAIN(14%)/WELLS(86%)	20.0	1.00	4.3	0.35	34.0	1.47	110	1.80	17.0	0.48	5.50	0.09	150	8.3	274	68	1.8	1.90	0.16	2.4
	03/12/21	58	WELLS(100%)	22.0	1.10	3.9	0.32	40.0	1.72	120	1.97	17.0	0.48	7.00	0.11	170	8.2	303	70	2.1	2.20	0.19	1.2
	02/11/21	14	CVC(21%)/WELLS(79%)	23.0	1.15	4.5	0.37	27.0	1.16	110	1.80	16.0	0.45	6.90	0.11	140	8.2	261	75	1.3	0.97	0.07	1.3
	01/11/21	14	WELLS(100%)	21.0	1.05	3.9	0.32	36.0	1.55	120	1.97	19.0	0.53	5.60	0.09	160	8.1	302	68	1.9	2.60	0.21	2.4
	12/10/20	0	WELLS(100%)	23.0	1.15	3.4	0.28	60.0	2.59	130	2.13	25.0	0.70	3.80	0.06	220	8.1	423	72	3.1	3.10	0.57	4.2
	11/05/20	48	WELLS(100%)	23.0	1.15	4.1	0.34	50.0	2.16	120	1.97	21.0	0.59	6.20	0.10	200	8.3	343	74	2.4	2.90	0.35	2.0
	10/09/20	48	CVC(29%)/WELLS(71%)	19.0	0.95	3.9	0.32	42.0	1.81	120	1.97	21.0	0.59	6.20	0.10	180	8.2	336	63	2.3	3.30	0.34	1.3
	09/10/20	134	FKC(71%)/WELLS(29%)	18.0	0.90	2.6	0.21	29.0	1.25	73	1.20	12.0	0.34	5.00	0.08	120	7.9	225	56	1.6	0.29	0.20	2.5
	08/11/20	196	FKC(51%)/CVC(6%)/Kern River(12%)/WELLS(31%)	35.0	1.75	7.6	0.62	42.0	1.81	110	1.80	22.0	0.62	15.00	0.24	220	8.0	378	120	1.7	ND	0.22	4.3
	07/09/20	164	FKC(66%)/WELLS(34%)	21.0	1.05	3.2	0.26	31.0	1.34	88	1.44	18.0	0.51	6.70	0.11	150	7.8	279	65	1.6	0.60	0.19	2.1
	06/05/20	106	FKC(24%)/CVC(10%)/WELLS(66%)	24.0	1.20	4.7	0.39	40.0	1.72	110	1.80	24.0	0.67	7.50	0.12	180	8.1	344	78	2.0	1.10	0.26	3.1
	05/08/20	130	FKC(42%)/KD WELLS(3%)/WELLS(55%)	20.0	1.00	4.6	0.38	48.0	2.07	120	1.97	27.0	0.76	4.70	0.08	200	8.1	358	69	2.5	2.80	0.44	2.3
	04/13/20	28	WELLS(100%)	18.0	0.90	4.1	0.34	42.0	1.81	100	1.64	24.0	0.67	1.60	0.03	180	8.7	335	63	2.3	2.70	0.38	3.9
	Average			**22.1**	**1.1**	**4.2**	**0.3**	**39.7**	**1.7**	**110.8**	**1.8**	**19.9**	**0.6**	**6.4**	**0.1**	**173.6**	**8.2**	**318.4**	**72.4**	**2.0**	**2.0**	**0.3**	**2.4**
South Canal	05/07/21	120	KD WELLS & KD MAIN(12%)/WELLS(88%)	34.0	1.70	9.7	0.80	40.0	1.72	140	2.30	37.0	1.04	9.70	0.16	230	8.1	420	120	1.6	ND	0.12	1.0
	04/07/21	140	KD WELLS & KD MAIN(9%)/WELLS(91%)	32.0	1.60	9.0	0.74	39.0	1.68	140	2.30	32.0	0.90	9.00	0.15	210	8.2	381	120	1.6	ND	0.15	1.6
	03/12/21	50	WELLS(100%)	33.0	1.65	8.5	0.70	40.0	1.72	140	2.30	35.0	0.98	11.00	0.18	220	8.2	403	120	1.6	ND	0.18	2.2
	02/11/21	20	CVC(18%)/WELLS(82%)	35.0	1.75	9.1	0.75	38.0	1.64	120	1.97	37.0	1.04	15.00	0.24	220	8.4	410	120	1.5	ND	0.11	1.6
	01/11/21	10	WELLS(100%)	43.0	2.15	13.0	1.07	48.0	2.07	140	2.30	80.0	2.25	7.40	0.12	290	8.1	546	160	1.7	ND	0.16	1.6
	12/10/20	0	WELLS(100%)	22.0	1.10	3.7	0.30	63.0	2.72	120	1.97	24.0	0.67	2.90	0.05	220	8.6	423	69	3.3	3.40	0.61	1.7
	11/05/20	70	WELLS(100%)	32.0	1.60	7.8	0.64	50.0	2.16	140	2.30	35.0	0.98	9.60	0.15	230	8.1	412	110	2.1	0.16	0.28	1.9
	10/09/20	100	CVC(21%)/WELLS(79%)	30.0	1.50	8.6	0.70	38.0	1.64	140	2.30	34.0	0.96	10.00	0.16	220	8.1	407	110	1.6	0.22	0.16	1.2
	09/10/20	200	FKC(68%)/WELLS(32%)	22.0	1.10	4.1	0.34	30.0	1.29	81	1.33	18.0	0.51	6.60	0.11	140	7.8	250	72	1.5	ND	0.19	3.6
	08/11/20	130	FKC(46%)/CVC(5%)/Kern River(11%)/WELLS(38%)	35.0	1.75	7.5	0.61	58.0	2.50	140	2.30	36.0	1.01	10.00	0.16	260	7.9	430	120	2.3	ND	0.34	1.9
	07/09/20	130	FKC(59%)/WELLS(41%)	25.0	1.25	5.3	0.43	32.0	1.38	98	1.61	25.0	0.70	8.90	0.14	170	7.9	327	84	1.5	ND	0.16	1.5
	06/05/20	140	FKC(17%)/CVC(7%)/WELLS(76%)	31.0	1.55	8.8	0.72	41.0	1.77	140	2.30	34.0	0.96	9.60	0.15	220	8.1	407	110	1.7	ND	0.16	1.7
	05/08/20	160	FKC(32%)/KD WELLS(3%)/WELLS(65%)	25.0	1.25	7.4	0.61	35.0	1.51	130	2.13	44.0	1.24	6.50	0.10	220	8.0	419	93	1.6	1.10	0.19	2.4
	04/13/20	0	WELLS(100%)	17.0	0.85	5.0	0.41	21.0	0.91	75	1.23	17.0	0.48	1.50	0.02	120	8.8	234	64	1.1	0.86	0.07	5.5
	Average			**29.7**	**1.5**	**7.7**	**0.6**	**40.9**	**1.8**	**124.6**	**2.0**	**34.9**	**1.0**	**8.4**	**0.1**	**212.1**	**8.2**	**390.6**	**105.1**	**1.8**	**1.1**	**0.2**	**2.1**

EXHIBIT "C1"

ARVIN-EDISON WATER STORAGE DISTRICT

WATER SUPPLY WATER QUALITY SUMMARY

	Date	Flow[1]	Import	Calcium		Magnesium		Sodium		Bicarbonate		Chloride		Nitrate		TDS	pH	EC	Hardness	SAR	Gypsum	Boron	Turbidity
		cfs	Source	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l	me/l	mg/l		umhos/cm	mg/l		lbs/AF	mg/l	NTU
Intertie Pipeline	05/07/21	0	KD WELLS & KD MAIN(12%)/WELLS(88%)	36.0	1.80	11.0	0.90	40.0	1.72	150	2.46	38.0	1.07	11.00	0.18	240	8.1	439	130	1.5	ND	0.13	3.4
	04/07/21	0	KD WELLS & KD MAIN(9%)/WELLS(91%)	36.0	1.80	12.0	0.98	41.0	1.77	150	2.46	39.0	1.10	10.00	0.16	240	8.3	431	140	1.5	ND	0.15	4.1
	03/12/21	0	WELLS(100%)	32.0	1.60	9.1	0.75	42.0	1.81	120	1.97	35.0	0.98	11.00	0.18	220	8.5	406	120	1.7	ND	0.16	3.6
	02/11/21	0	CVC(18%)/WELLS(82%)	33.0	1.65	8.9	0.73	50.0	2.16	120	1.97	48.0	1.35	10.00	0.16	240	8.3	448	120	2.0	ND	0.23	3.9
	01/11/21	0	WELLS(100%)	40.0	2.00	12.0	0.98	48.0	2.07	130	2.13	70.0	1.97	23.00	0.37	300	8.2	547	150	1.7	ND	0.15	9.0
	12/10/20	0	WELLS(100%)	30.0	1.50	8.5	0.70	61.0	2.63	110	1.80	58.0	1.63	4.30	0.07	260	8.4	513	110	2.6	ND	0.39	9.4
	11/05/20	0	WELLS(100%)	30.0	1.50	8.6	0.70	41.0	1.77	120	1.97	27.0	0.76	8.70	0.14	200	8.5	362	110	1.7	ND	0.15	1.8
	10/09/20	0	CVC(21%)/WELLS(79%)	30.0	1.50	8.9	0.73	38.0	1.64	120	1.97	38.0	1.07	9.50	0.15	220	8.4	414	110	1.6	ND	0.15	3.9
	09/10/20	0	FKC(68%)/WELLS(32%)	24.0	1.20	4.9	0.40	35.0	1.51	83	1.36	24.0	0.67	6.30	0.10	170	8.5	284	80	1.7	ND	0.20	2.8
	08/11/20	0	FKC(46%)/CVC(5%)/Kern River(11%)/WELLS(38%)	30.0	1.50	8.4	0.69	47.0	2.03	100	1.64	36.0	1.01	9.50	0.15	220	8.4	375	110	2.0	ND	0.17	2.2
	07/09/20	0	FKC(59%)/WELLS(41%)	27.0	1.35	5.7	0.47	35.0	1.51	100	1.64	27.0	0.76	8.40	0.14	180	8.0	340	90	1.6	ND	0.19	1.9
	06/05/20	0	FKC(17%)/CVC(7%)/WELLS(76%)	30.0	1.50	8.4	0.69	43.0	1.85	130	2.13	32.0	0.90	8.50	0.14	210	8.0	392	110	1.8	ND	0.19	1.6
	05/08/20	0	FKC(32%)/KD WELLS(3%)/WELLS(65%)	27.0	1.35	9.3	0.76	34.0	1.47	130	2.13	30.0	0.84	7.30	0.12	200	8.1	380	110	1.4	0.22	0.16	1.8
	04/13/20	0	WELLS(100%)	29.0	1.45	9.3	0.76	36.0	1.55	130	2.13	33.0	0.93	6.20	0.10	210	8.3	390	110	1.5	ND	0.15	5.4
	Average			**31.0**	**1.6**	**8.9**	**0.7**	**42.2**	**1.8**	**120.9**	**2.0**	**38.2**	**1.1**	**9.6**	**0.2**	**222.1**	**8.3**	**408.6**	**114.3**	**1.7**	**0.2**	**0.2**	**3.9**

Water Supply Water Quality Note: [1] Positive flow rate is reverse flow into the District. Where the reported value is ND, the method detection limit is entered.

Water Supply Water Quality Note: [2] Reverse flow into the District South Canal (Sycamore check gate was closed).

Water Supply Water Quality Note: [3] Constituent ran past sample hold time.

ND: NONE DETECTED.

NA: NOT AVAILABLE OR NOT TESTED.

mg/l: MILLIGRAMS PER LITER; SAME AS PARTS PER MILLION (ppm).

me/l: MILLEQUIVALENTS PER LITER; SAME AS EQUIVALENTS PER MILLION (epm).

INTAKE: SAMPLE TAKEN AT COTTONWOOD RD. SOUTH OF PANAMA LANE.

NORTH: SAMPLE TAKEN DOWNSTREAM OF SYCAMORE CHECK GATE.

SOUTH: SAMPLE TAKEN DOWNSTREAM OF TEJON CHECK GATE.

INTERTIE: TERMINUS OF SOUTH CANAL (S93 FOREBAY).

SODIUM: FOR SURFACE IRRIGATION: SAR < 3 IS GOOD. FOR SPRINKLER IRRIGATION: SODIUM < 3 me/l IS GOOD.

NITRATE: NITRATE IN WATER SLIGHTLY REDUCES FERTILIZER REQUIREMENT.

BICARBONATE: BICARBONATE < 1.5 me/l IS SATISFACTORY FOR OVERHEAD SPRINKLERS.

CHLORIDE: FOR SURFACE IRRIGATION CHLORIDE < 4 me/l IS GOOD.

TDS: TDS < 450 IS ACCEPTABLE FOR UNRESTRICTED USE.

GYPSUM: AMOUNT OF CALCIUM SULFATE IN POUNDS PER ACRE-FOOT OF WATER APPLIED. INCREASES WATER PERMEABILITY AND HELPS CORRECT EXCESS SODIUM. INCREASES CLAY FLOCCULATION FOR INCREASING PERMEABILITY.

pH: A MEASURE OF ACIDITY. A pH < 7 IS ACIDIC, pH = 7 IS NEUTRAL, pH > 7 IS BASIC. NORMAL RANGE IS 6.5 - 8.4. A pH > 8 MAY NEED TO BE BUFFERED FOR PESTICIDE APPLICATION. AFFECTS NUTRIENT AVAILABILITY.

EC: ELECTRICAL CONDUCTIVITY. A MEASURE OF WATER SALINITY; SOIL - IN MILLIMHOS PER CENTIMETER (mmho/cm); WATER - MORE OFTEN, IN MICROMHOS PER CENTIMETER (umhos/cm). EC < 700 (umhos/cm) HAS NO RESTRICTIONS FOR AGRICULTURAL USE. EC < 200 (umhos/cm) CAN REDUCE INFILTRATION RATE.

HARDNESS: HARD WATER, INDICATING CALCIUM AND MAGNESIUM, IS BENEFICIAL FOR AGRICULTURE.

SAR: SODIUM ADSORPTION RATIO. A RATIO OF SODIUM TO CALCIUM AND MAGNESIUM.

EVALUATE WITH EC.

SAR = 0 - 3 AND EC > 400 ACCEPTABLE

SAR = 3 - 6 AND EC > 900 ACCEPTABLE

BORON: BORON < 0.50 mg/l IS SATISFACTORY FOR ALL CROPS. EXCESSIVE BORON IS PHYTOTOXIC (BURNS) TO PLANTS.

EXHIBIT "C-2"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 AQUATIC PEST CONTROL TREATMENTS TO CANALS & SPREADING BASINS

Treatment Weeks (Monday)		Temps	Intake	North															
			Stine Siphon	Bal. Res.	PP 24P1	NCSW	PP 41P1	PP 55P1	Syc. Ponds	Syc. Check	PP 32P1	PP 38P1	Tej. Ponds	Tej. Check	615 Check	729 Check	883 Check	Spill Way	Intertie Forbay
			353+87	145+00	237+00	326+50	413+10	546+00	576+50	664+30	291+50	386+30		458+40	615+00	729+10	883+00	885+45	900+27
JAN	01/04/21	38-58																	
	01/11/21																		
	01/18/21																		
	01/25/21																		
FEB	02/01/21	36-69																	
	02/08/21																		
	02/15/21																		
	02/22/21																		
MAR	03/01/21	68-42			15	15	15	15	207				15		15				
	03/01/21				1.5	2	2	2	70	9			2	18.5	2				
	03/08/21			145			200							25		14			
	03/08/21			50			65												
	03/15/21													10	10				
	03/15/21												3		6.5	2			
	03/22/21			366.5	20			10	10										
	03/22/21			85.5	91.5	92			21							15			
	03/22/21			30	30	31													
	03/29/21				120	120	10	10	214					10	10				
	03/29/21				40	40	2.5	2.5					12			7			
APR	04/05/21	78-47					20	10					30	10		15			
	04/12/21						5	5	12						5	5			
	04/12/21		17				2.5		2.5	17			25		2.5	17			
	04/19/21												29			15			
	04/26/21							15	15				9		10				
MAY	05/03/21	85-56						275	14	14			20			14			
	05/10/21						5	5	5				14			9			
	05/17/21						212						14			8			
	05/24/21					7	10		12				16		10	7			
	05/24/21						2.5								2.5				
	05/31/21																		
JUN	06/07/21	63-93																	
	06/14/21																		
	06/21/21																		
	06/28/21																		
JUL	07/05/21	65-98																	
	07/12/21																		
	07/19/21																		
	07/26/21																		
AUG	08/02/21	60-89																	
	08/09/21																		
	08/16/21																		
	08/23/21																		
	08/30/21																		
SEPT	09/06/21	62-93																	
	09/13/21																		
	09/20/21																		
	09/27/21																		
OCT	10/04/21	46-79																	
	10/11/21																		
	10/18/21																		
	10/25/21																		
NOV	11/01/21	41-71																	
	11/08/21																		
	11/15/21																		
	11/22/21																		
	11/29/21																		
DEC	12/06/21	40-59																	
	12/13/21																		
	12/20/21																		
	12/27/21																		

2021 Cost To Date

Treatment	Material	Labor	Total
Captain/Nautique	$81,734	$6,960	$88,694
Phycomycin	$9,514	$2,912	$12,426
Cascade	$0	$0	$0
Teton/Hydrothol	$98,280	$15,888	$114,168
Spreading Basins	$0	$0	$0
Total	$189,528	$25,760	$215,288

Shaded weeks are actual

Copper treatment (gal/lbs) for algae and pondweed (injected/broadcast)

Phycomycin (hydrogen peroxide) treatment (lbs) for algae (broadcast)

Endothall treatment (gal) for milfoil/basins (injected)

Endothall treatment (gal) for algae (injected)

Sonar/Clearcast/RoundUp Custom/MSO (gal)

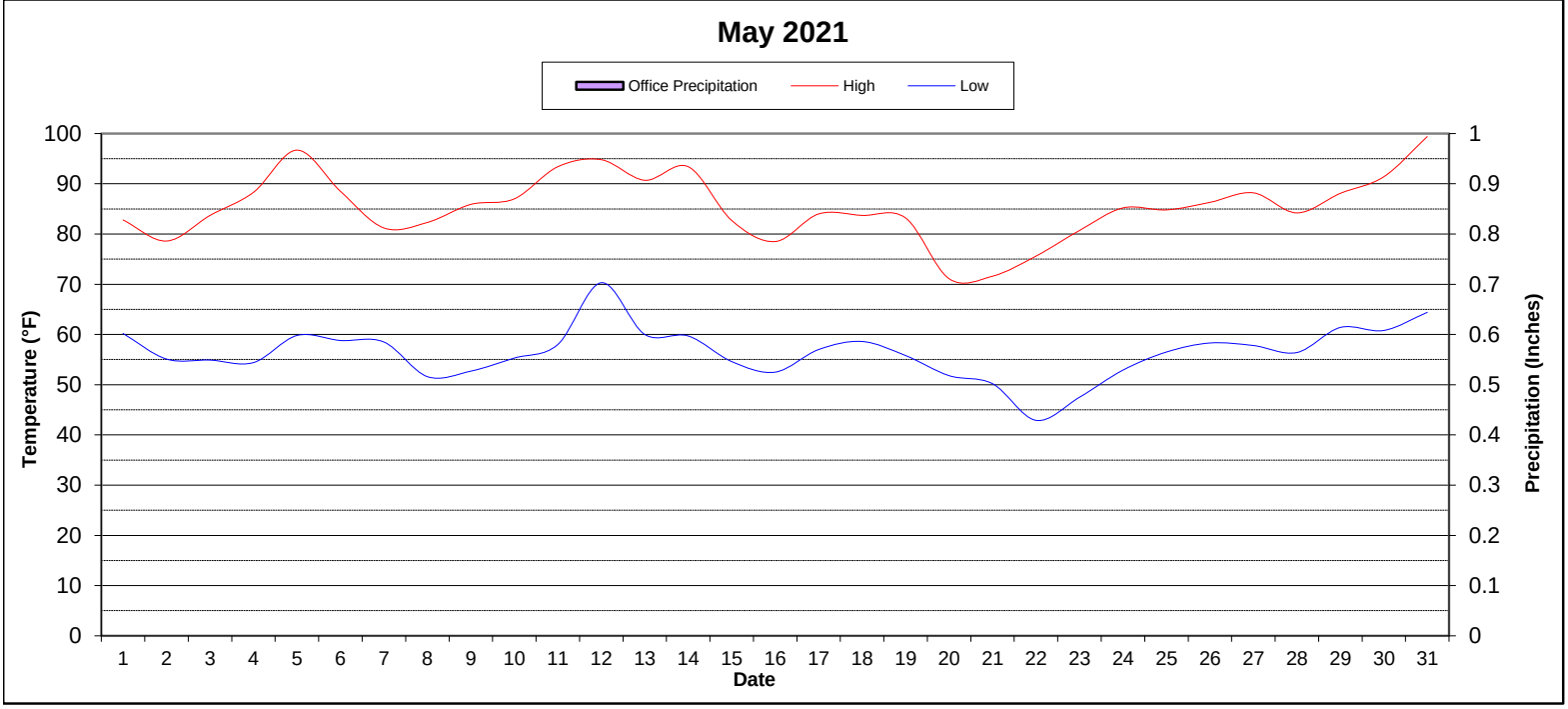
Winter Maintenance

Year Type	Amount	Year
Dry	$399,808	2020
Wet	$105,928	2019
Normal-Dry	$235,599	2018
Wet	$222,685	2017
Normal-Dry	$186,034	2016
Critical-Low	$262,734	2015
Critical-High	$367,563	2014
Dry	$528,770	2013
Dry	$504,159	2012
Wet	$233,449	2011
Normal-Wet	$24,969	2010

EXHIBIT "D"

ARVIN-EDISON WATER STORAGE DISTRICT

SUMMARY OF CLIMATOLOGICAL OBSERVATIONS



PRECIPITATION	BAL RES *(1)*		OFFICE *(2)*		SYCAMORE *(3)*		TEJON *(4)*		INTERTIE *(5)*	
	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.	INCHES	% AVG.
AVG. MONTHLY	0.87		0.34		0.32		0.33		1.50	
AVG. YEAR TO DATE	7.46		8.38		8.03		7.06		7.42	
CURRENT MONTH	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%
CUMULATIVE (07/01/20 - 06/30/21)	3.79	51%	3.37	40%	3.24	40%	2.35	33%	2.76	37%

TEMPERATURE *(6)*	(ºF)	DATE	TIME
MAXIMUM TEMPERATURE	99	5/31/2021	5:00 PM
AVERAGE MAXIMUM TEMPERATURE	85		
# DAYS THIS MONTH ABOVE 100 ºF	0		
MINIMUM TEMPERATURE	45	5/22/2021	5:00 AM
AVERAGE MINIMUM TEMPERATURE	56		
# DAYS THIS MONTH BELOW 32 ºF	0		

WIND *(6)*	M.P.H.	DATE	TIME	DRCTN
MAXIMUM WIND SPEED	10.9	5/25/2021	10:00 AM	SW
AVERAGE WIND SPEED	3.2			
AVERAGE WIND SPEED @ 8:00 AM	2.0			

BAROMETRIC PRESSURE *(7)*	IN. HG	DATE	TIME
AVERAGE PRESSURE @ 8:00 AM	29.45		
MAXIMUM PRESSURE	29.58	5/23/2021	7:00 AM
MINIMUM PRESSURE	29.22	5/14/2021	7:00 PM

NOTES

(1) October 2018 to Present data gathered from District rain gauges
(2) 1975 to Present data gathered from District rain gauges
(3) 1968 to Present data gathered from District rain gauges
(4) 1967 to Present data gathered from District rain gauges
(5) October 2018 to Present data gathered from District rain gauges
(6) Data retrieved from CIMIS (http://www.cimis.water.ca.gov/WSNReportCriteria.aspx)
(7) Data retrieved from Weather Underground (https://www.wunderground.com/us/ca/arvin/zmw:93203.1.99999)
Precipitation Day is 8:00 AM to 8:00 AM

EXHIBIT "E"

ARVIN-EDISON WATER STORAGE DISTRICT

WY2021 ENERGY CONSUMPTION AND POWER DEMAND

	ENERGY CONSUMED - KWH						TOTAL DEMAND - KW						
Month	Forrest Frick PP	Distrib. System	Spreading	Wells	Intertie PP	Total	Forrest Frick PP	Distrib. System	Spreading	Wells	Intertie PP	Total	Load Factor
MAR 21	88,700	2,479,579	14,996	6,161,961	3,553	8,748,789	1,197	12,574	173	15,643	6	29,593	40%
APR	556,206	4,277,014	17,268	10,765,374	3,628	15,619,490	1,578	13,994	322	20,620	6	36,520	59%
MAY													
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN 22													
FEB													
TOTAL	644,906	6,756,593	32,264	16,927,335	7,181	24,368,279							

Notes: - Since 2005 KW records reflect non-simultaneous demands.

- Energy use for lighting accounts for approximately 90,000 kWh/month at District wellfields and 4,000 kWh/month at the Intertie Pumping Plant

5/14/2021

EXHIBIT "F"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR WELLFIELD PRODUCTION - AF

Month	Bal Res		North Canal 5		Wellfield						Total		
					North		Sycamore		Tejon				
	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	% of Historical Max	AF	AF / Day	% of Historical Max
MAR - 21	0	0%	720	59%	2,580	116%	2,327	36%	1,989	36%	7,616	246	49%
APR	0	0%	908	75%	3,051	135%	4,150	60%	4,010	80%	12,119	404	81%
MAY	98	19%	1,071	86%	3,684	125%	4,804	66%	4,593	85%	14,250	475	94%
JUN													
JUL													
AUG													
SEP													
OCT													
NOV													
DEC													
JAN - 22													
FEB													
Total	98		2,699		9,315		11,281		10,592		33,985	375	75%
Ratio	0%		8%		27%		33%		31%		100%	Average	
Wells	4		5		14		34		29		86		

EXHIBIT "G"

ARVIN-EDISON WATER STORAGE DISTRICT

2021 WATER YEAR GROSS SPREADING - AF

Month	Bal Res	North Gravity	North Pressure	Sycamore	Tejon Gravity	Tejon Pressure	Murray Gravity	Landowner Recharge	Subtotal	In-Lieu	Temporary Water	Total
MAR-21	138	0	0	0	0	0	0	0	138	0	0	138
APR	109	0	0	0	0	0	0	0	109	0	0	109
MAY	209	0	0	0	0	30	0	0	239	0	0	239
JUN												
JUL												
AUG												
SEP												
OCT												
NOV												
DEC												
JAN-22												
FEB												
Total	456	0	0	0	0	30	0	0	486	0	0	486
Ratio	93.8%	0.0%	0.0%	0.0%	0.0%	6.2%	0.0%	0.0%	100.0%	0.0%	0.0%	100%
Ratio	93.8%			0.0%	6.2%		0.0%	0.0%				

Total Pressure	456		0			30			486			486
	94%		0%			6%			100%			100%

EXHIBIT "H-1"

ARVIN-EDISON WATER STORAGE DISTRICT

STATIC VS PUMPING WATER LEVELS IN DISTRICT WELLS - MAY 2021

ALL VALUES IN FEET

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
NORTH CANAL (23)	N1	414	474	610	840	60	136
	N2	432	534	700	840	102	166
	N3	423	441	610	840	18	169
	N4	421	448	550	864	28	102
	N5	440	451	650	864	12	199
	N6	494	590	640	920	96	50
	N7	464	489	600	1010	25	111
	N8	410	449	560	970	39	111
	N9	441	552	700	990	111	148
	N10	440	502	560	990	62	58
	N11	414	447	562	1020	32	116
	N12	461	494	600	1030	32	106
	N13	464	496	600	1000	32	104
	N14	429	450	540	900	21	90
	N15	388	554	700	1200	166	146
	N16	355	550	600	1200	195	50
	N17	421	552	610	1200	132	58
	N18	298	434	610	1190	136	176
	N19	469	515	760	1300	46	245
	N20	575	612	820	1020	37	208
	N21	571	640	660	950	69	20
	N22	458	482	680	990	24	198
	N23	420	476	680	990	56	204
	Avg	439	506				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
TEJON (29)	71	553	585	800	1050	32	215
	72	555	585	800	1045	30	215
	73	546	578	800	1018	32	222
	74	527	597	800	1084	69	203
	75	541	571	800	1045	30	229
	76	536	589	700	996	53	111
	77	518	608	800	1066	90	192
	78	523	581	800	1038	58	219
	79	527	568	700	1032	42	132
	80	511	631	800	996	120	169
	81	494	575	700	925	81	125
	82	425	494	800	996	69	306
	83	488	606	800	996	118	194
	84	409	457	700	955	49	243
	86	515	560	800	996	45	240
	87	551	585	800	984	35	215
	88	544	590	800	948	46	210
	89	516	553	800	996	37	247
	90	492	562	700	996	70	138
	91	322	N/A	700	996	N/A	N/A
	92	557	606	800	996	49	194
	93	523	595	800	996	72	205
	94	578	631	860	996	53	229
	95	528	558	800	996	30	242
	96	800	648	800	996	-152	152
	98	557	594	760	1340	37	166
	99	550	584	760	1340	35	176
	100	487	529	760	1340	42	231
	101	410	489	760	1310	79	271
	Avg	520	575				

	WELL #	STATIC LEVEL	PUMPING LEVEL	BOWL DEPTH	TOTAL DEPTH	DRAW DOWN	BOWL COVERAGE
SYCAMORE (34)	1	453	506	705	800	53	199
	2	457	542	690	876	85	148
	4	487	538	700	876	51	162
	5	503	544	720	876	42	176
	6	436	521	690	876	85	169
	7	485	557	700	830	72	143
	8	619	485	640	860	-134	155
	9	497	552	700	886	55	148
	10	480	531	690	850	51	159
	11	474	538	700	880	65	162
	12	490	506	700	860	16	194
	13	469	536	700	850	67	164
	14	467	561	670	810	95	109
	15	472	643	710	820	171	67
	16	460	628	700	888	169	72
	17	424	592	650	820	168	58
	18	428	486	650	820	58	164
	20	431	481	680	804	51	199
	21	452	505	690	856	53	185
	22	416	464	610	792	49	146
	23	420	466	600	788	46	134
	24	439	488	580	780	49	92
	25	421	467	610	777	46	143
	26	427	489	690	816	62	201
	28	403	454	660	782	51	206
	29	447	547	690	787	99	143
	31	427	519	660	725	92	141
	32	388	471	640	739	83	169
	33	460	571	700	780	111	129
	34	425	N/A	700	781	N/A	N/A
	35	455	538	700	800	83	162
	36	410	437	600	820	27	163
	37	435	458	540	820	23	82
	38	486	514	860	1270	28	347
	Avg	454	519				

OUT OF SERVICE (5)
AIRLINE FAILURE (8)
FAILED (2)
86 TOTAL WELLS

*Bowl depth measured to top of pump
*Pumping levels are estimated based on previous draw down records. (6 month average)
*Airline failure levels were obtained with acoustic sounder

MONTHLY SUMMARY - AVERAGE WATER LEVELS

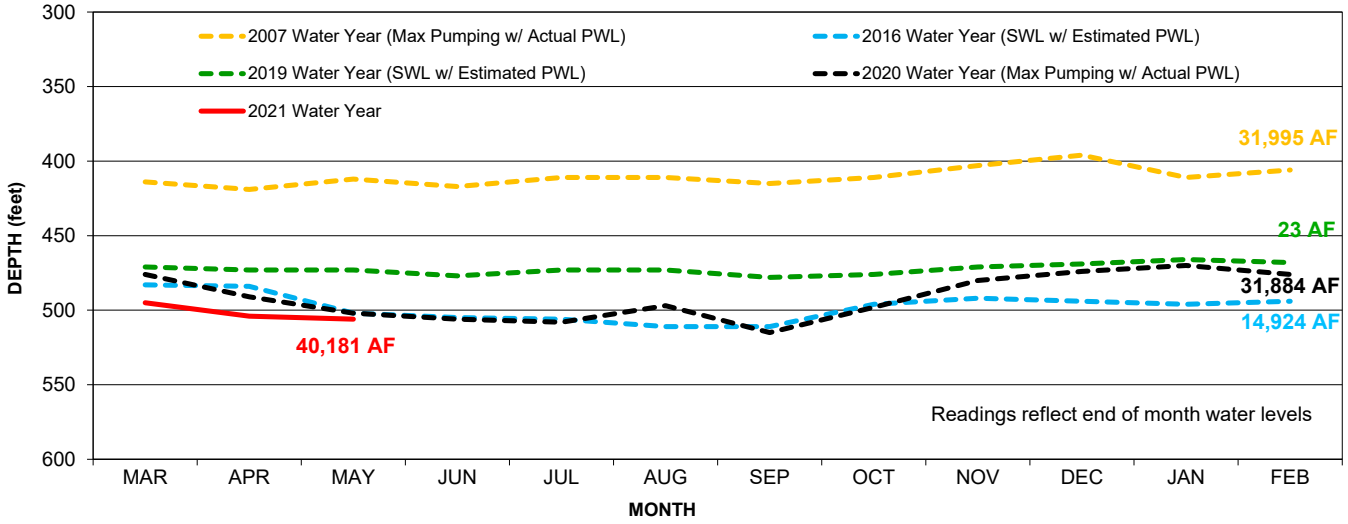
READINGS END OF	STATIC LEVELS N. CANAL	STATIC LEVELS SYCAMORE	STATIC LEVELS TEJON	PUMPING LEVELS N. CANAL	PUMPING LEVELS SYCAMORE	PUMPING LEVELS TEJON
MAY-20	432	415	496	502	462	566
JUN	439	422	505	506	478	575
JUL	441	427	495	508	466	569
AUG	440	421	491	479	460	573
SEP	449	435	491	515	474	563
OCT	433	426	489	498	465	562
NOV	415	392	433	480	429	500
DEC	408	391	442	474	429	500
JAN-21	405	390	439	470	428	513
FEB	411	405	445	476	443	519
MAR	432	428	469	495	471	549
APR	439	436	479	504	497	564
MAY	439	454	520	506	519	575
CHANGE TO-DATE	-7	-39	-24	-4	-57	-9

EXHIBIT "H-2"

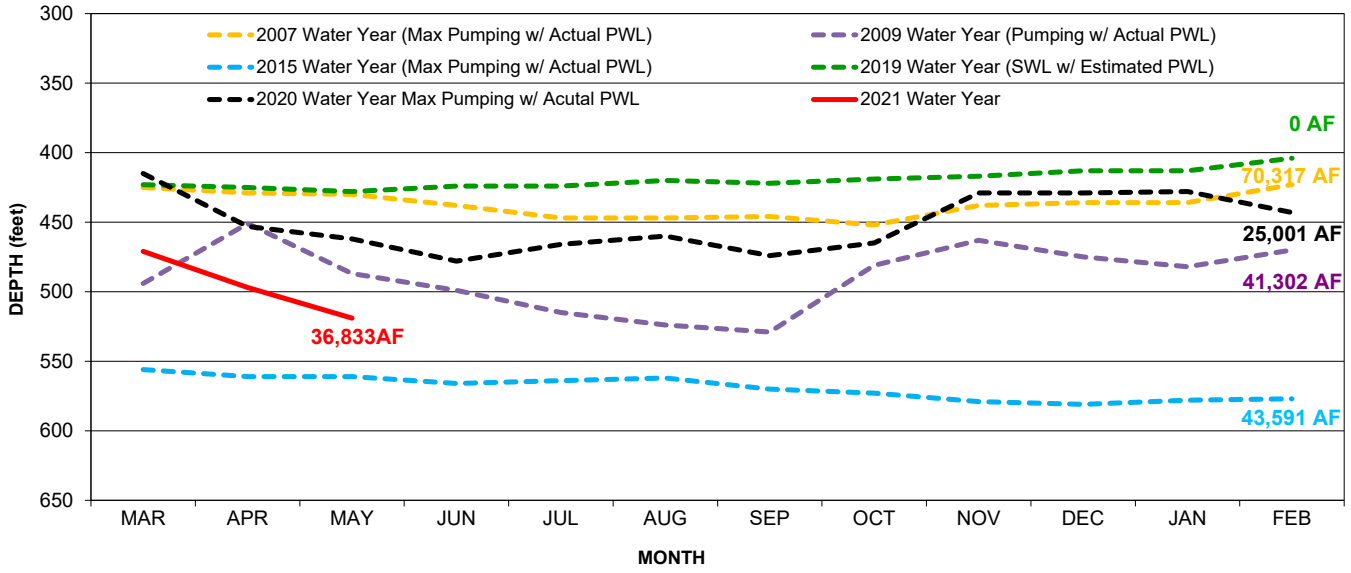
ARVIN-EDISON WATER STORAGE DISTRICT

WELLFIELD PUMPING WATER LEVELS - 2007-09, 2013-16, AND 2018-21

NORTH CANAL



SYCAMORE WELLFIELD



TEJON WELLFIELD

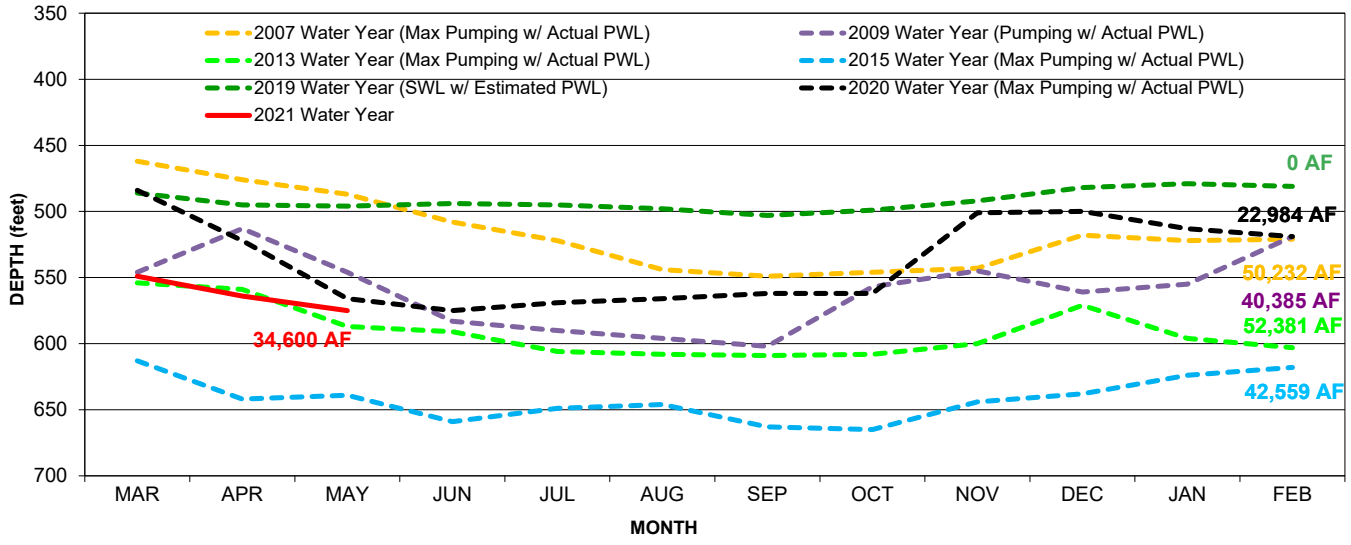


EXHIBIT "I"

May 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
JSM—Blue MD—Orange Staff—Green Board—Brown	ACWA –Association of California Water Agencies ACSD - Arvin Community Services District BOD - Board of Directors COB - City of Bakersfield CVC - Cross Valley Canal CVPIA - Central Valley Project Improvement Act EC- Executive Committee ETGSA– East Tule Basin GW Sustainability Agency ETFOG - Friant Operational Guidelines EIR - Environmental Impact Report FWA - Friant Water Authority GSP - Groundwater Sustainability Plan	KC - Kern County KCWA - Kern County Water Agency KRGSA - Kern River Groundwater Sustainability Agency KRWCA - Kern River Watershed Coalition Authority MAR - Managed Aquifer Recharge MTs - Microsoft Teams MWD - Metropolitan Water District RFG - Restoration Flow Guidelines RWA– Restoration Water Account SJVWIA—San Joaquin Valley Water Infrastructure Authority SJRRP - San Joaquin River Restoration Program	SGMA - Sustainable Groundwater Management Act TF - Temperance Flat Steering Committee TC- Teleconference WAKC - Water Association of Kern County WBC - Wage & Benefit Comm. WRMWSD - Wheeler Ridge-Maricopa Water Storage District WWGSA - White Wolf Groundwater Sustainability WMP - Water Mgmt. Program WQSA - Water Quality Sub-Account			1
2	3 JDA (TC) PWRPA BOD (WebEx)	4 CVC EIR w/EKI & Legal Counsel (MTs) CVO Update (Microsoft Teams)	5 Prop 218 Workshop w/Camp	6 Prop 218 Workshop w/ Sunridge	7 Kern Managers Shafter Wasco ID Programs FKC Water Quality	8
9	10 Prop 218 Workshop w/Grimmway WDT3 PWRPA (MTs) District Issues w/ Camp	11 AEWSD BOD	12 Sunset GW Recharge w/ KDWD	13 CVC EIR w/EKI & Legal Counsel (TC) Granite Quarry Recharge (WebEx) Water Supply Update (WebEx) Prop 218 Workshop w/ Valpredo Farms	14 Friant Managers (Lindsay) MWD Update (TC) Water Supply Update	15
16	17 FWA EC w/Camp (Lindsay) KGA Prep w/Yurosek KGA EC (Yurosek)	18 CVC EIR w/EKI & Legal Counsel (MTs) CVC Expansion Ad-Hoc (GTM)	19 RCCP Funding w/P&P & NRDC	20 Millerton Lake Operations (MTs)	21 Kern Managers	22
23	24 2020 Water Accounting w/SWID WQ Small Group w/ USBR (MTs) FWA Finance Giumarra) Power Issues	25 WAKC Virtual Summit Sunview SGMA Update CVC Hydraulic Ad-Hoc	26 KGA Prep & BOD (Yurosek) (Zoom) WWB Tech Ad-Hoc CVC Advisory Committee (GTM) Water Supply Update SGMA w/Yurosek & Legal Counsel	27 FWA BOD w/Camp (WebEx) Ethics Training (Kirschenmann)	28	29
30	31 Memorial Day!					